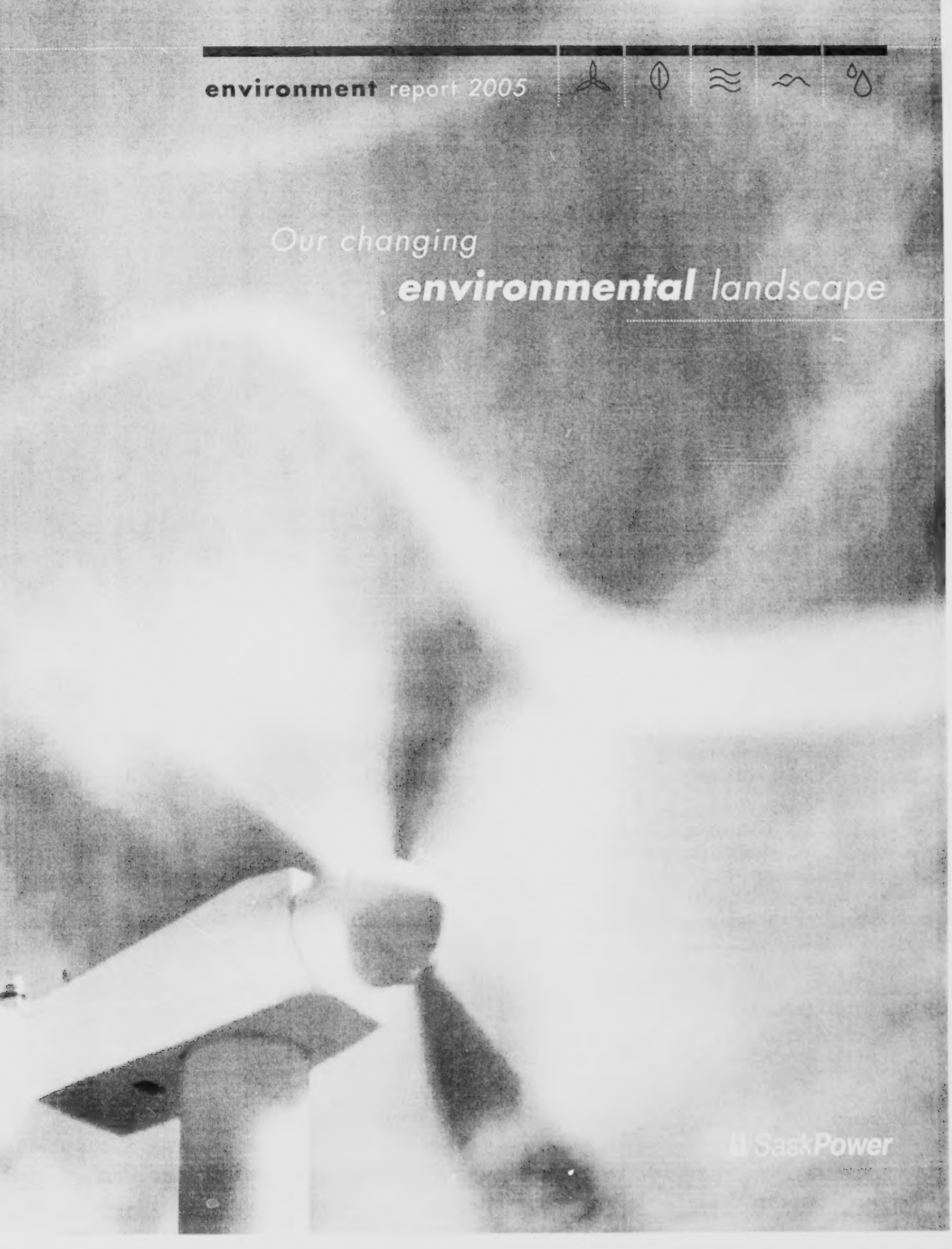
environment report *2005*

Our changing ***environmental*** *landscape*



SaskPower

In Saskatchewan, we've always recognized the power of wind. Before rural electrification, windmills were found in farmyards across the province. Today, we've come full circle. Advanced engineering and technology are allowing SaskPower to benefit on a grand scale from one of earth's oldest forms of energy. Positioned in the hills approximately 25 kilometres southeast of Swift Current, the new 150-megawatt Centennial Wind Power Facility is currently Canada's largest operating wind facility. With 83 turbines, it can produce enough electricity to serve about 64,000 Saskatchewan homes. In Saskatchewan's centennial year, this $272-million investment in renewable energy is a fitting tribute to the ingenuity of our pioneers.

Our Environment Report presents SaskPower's environmental performance, outlook and activities. We invite you to learn more about our company by visiting our web site at saskpower.com.

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Company profile

SaskPower is the principal supplier of electricity in Saskatchewan, serving more than 441,000 customers and managing $4.1 billion in assets. We operate with a total available capacity of approximately 3,500 megawatts, supplying customers through more than 154,000 kilometres of transmission and distribution lines. The focus of recent additions to our system is on environmentally sustainable and renewable energy sources, with the new 150-megawatt Centennial Wind Power Facility officially joining the Corporation's generating fleet in 2006.

Highlights

- Canada's largest operating wind facility — the 150-megawatt Centennial Wind Power Facility — begins producing electricity.
- SaskPower receives the province's first-ever Association of Professional Engineers and Geoscientists Environmental Excellence Award for its commitment to developing wind energy.
- Major feasibility study announced on world's first near-zero emissions pulverized coal plant.
- Research begins on viability of new polygeneration facility.
- An international mercury capture project continues at Poplar River Power Station.
- Poplar River Power Station Unit #2 upgrade underway, leading to increased efficiency and reduced particulate emissions.
- A three-year major overhaul is concluded at Nipawin Hydroelectric Station, a major source of renewable energy.
- A turbine and generator refurbishment is completed at Shand Power Station.
- A power purchase agreement for a 5-megawatt heat recovery project is signed with Alliance Pipeline as part of Phase I of the Environmentally Preferred Power Program.
- Proposals totaling a potential 241 megawatts are submitted to Phase II of the Environmentally Preferred Power Program.
- An Energy Performance Contracting service alliance is renewed with Honeywell for an additional five years.
- A province-wide power savings campaign focuses on helping customers use appliances more efficiently.
- SaskPower Shand Greenhouse marks Saskatchewan's centennial by growing and distributing approximately 81,000 Western red lilies.
- The Organic Lands Database tracks landowners who have chosen not to have herbicides used on power line rights-of-way near their properties.
- The Corporation's Environmental Management System is re-registered under the demanding ISO 14001 standard.
- SaskPower's Environmental Policy undergoes its annual review and is enhanced.
- The Corporation and its employees support a number of education-oriented environmental initiatives, including the Destination Conservation Saskatchewan program and the Energy and Our Environment school presentation.

President's **message**

In late 2005, Canada hosted the United Nations Climate Change Conference, the largest such meeting since the historic Kyoto Climate Conference in 1997. At this most recent gathering, a five-year program was established to identify impacts and measures to adapt to climate change. Even though Canada's level of commitment to the Kyoto Protocol remains uncertain at this time, we do know that tightened regulations emerging from these types of discussions are part of the new environmental landscape.

As a result, when people ask me what challenges lie ahead for SaskPower, I find it easy to respond. One of our most visible tasks is to continue preparing to deal with our aging infrastructure while balancing the need to respond to emerging environmental requirements. This is especially true as it relates to climate change.

The scope and uncertainty surrounding this area is new terrain for much of the current generation of SaskPower employees. Yet my colleagues talk about our future supply of electricity with an air of excitement. Instead of viewing the planning, engineering, building and upgrading of facilities as onerous, they view this assignment as a once-in-a-lifetime opportunity. They see it as a chance to place our company at the leading edge of technology that can help reduce the environmental impact associated with the production of electricity.

Of course, in looking at the replacement or refurbishment of virtually our entire generating fleet over the next 25-30 years, our quest for environmental excellence must be balanced with the other core commitments we make to customers in our mission statement: reliability, safety and affordability. These have been key requirements when considering additions to our Green Power Portfolio (GPP) — which is designed to meet Saskatchewan's new electricity needs until 2010 through the use of environmentally friendly sources that do not create new greenhouse gas emissions. Recent additions have demonstrated that simultaneously meeting the demanding criteria of the GPP and our corporate mission is possible.

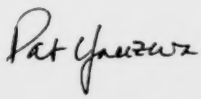
This year, SaskPower became a leader in Canada. When SaskPower International's 150-megawatt Centennial Wind Power Facility began feeding electricity into our grid, it became the largest operating wind facility in the country. Soon, clean coal technology may make us a leader in the world. The Corporation will have to choose its next large-scale generating facility in the next 12-18 months, and we have announced major research on a near-zero emissions coal plant that could be built in southern Saskatchewan. In addition to an extensive investigation into polygeneration, SaskPower will also be taking a close look at a variety of other solutions that include demand side management, hydroelectricity, other renewables, cogeneration, purchased power, imports and nuclear power.

This year, SaskPower became a leader in Canada. When SaskPower International's 150-megawatt Centennial Wind Power Facility began feeding electricity into our grid, it became the largest operating wind facility in the country. Soon, clean coal technology may make us a leader in the world.

It takes a special culture to effectively respond to the prospect of major change with innovation and enthusiasm. A major source of ongoing guidance for employees and those who work on behalf of SaskPower remains our corporate Environmental Policy. Each year, in accordance with our Environmental Management System, it is reviewed and submitted for approval by the Corporation's Executive; Environment, Occupational Health and Safety Committee of the Board of Directors; and the Board of Directors. As a result of the assessment in 2005, the language of the policy has been streamlined to better reflect updated corporate balanced scorecard indicators that support the strategic direction of promoting environmental stewardship.

This type of regular review and action is important not only for SaskPower, but also for all of our stakeholders. It contributes to the type of accountability and transparency that can help employees, customers, partners and regulatory agencies collectively reduce our impact on the environment we share.

As the coming months and years unfold, I invite you to join us in striving to create an environmental legacy of which we can all be proud.



Pat Youzwa
President and Chief Executive Officer

CONTINUOUS IMPROVEMENT

An environment of responsibility

The never-ending quest for continuous improvement is a defining characteristic of humanity. However, the impact of 150 years of North American industrialization brings with it the need to respond environmentally — to protect our natural landscape. In Saskatchewan, our vast and diverse environment has always been considered one of our greatest resources. From the tree- and water-covered rocky Canadian Shield in the north, to the great open rolling plains in the south, few areas of the world can boast such a beautiful and varied ecosystem.

As one of the largest companies in Saskatchewan, SaskPower's primary role is to provide electricity to customers in a safe, reliable, cost-effective and environmentally responsible manner. While each component of our corporation's mission carries great importance, never before has SaskPower's environmental duty been more apparent.

The challenge of supply

Continuous improvement contains both short- and long-term environmental obligations. Aside from addressing the day-to-day considerations associated with serving more than 441,000 customers, SaskPower is committed to meeting the highest standards in fulfilling future supply requirements. This includes dealing with emerging regulatory requirements that will call for significant reductions of emissions.

In the short term, SaskPower's sustainable energy strategy — the Green Power Portfolio (GPP) — aims to supply all of Saskatchewan's new electricity needs until 2010 from environmentally friendly sources that do not add to greenhouse gas (GHG) emissions. For the long term, leading-edge research and development projects will help determine the viability of clean coal and polygeneration technologies in filling baseload generation requirements.

A solution is in the air

A major component of the GPP is SaskPower International's new 150-MW Centennial Wind Power Facility, currently the largest operating wind power development in Canada. Built on 30 square kilometres of land, or 7,500 acres, the Centennial Wind Power Facility includes 83 Vestas V80 wind turbines, each generating 1.8 MW of power. They operate with wind speeds between 15-90 kilometres/hour, reaching full power at wind speeds of 50 kilometres/hour.

With the project complete, Saskatchewan's wind power generation capacity increases from 22 MW to 172 MW, approximately five per cent of total generation, which is currently the highest in Canada. In addition to SaskPower International's investment, the Government of Canada is providing approximately $54 million in funding over 10 years through the Wind Power Production Incentive Program.

SaskPower International's Centennial Wind Power Facility joins two other sources of wind power in southwestern Saskatchewan. SaskPower's Cypress Wind Power Facility uses 16 wind turbines to create a generating capacity of 11 MW. The Corporation also purchases electricity from the SunBridge Wind Power Project. This facility is an 11-MW, 17-turbine wind facility built, owned and operated by Suncor and Enbridge.

Rick Patrick » profile

Vice-president
Planning, Environment and Regulatory Affairs
SaskPower

Supplying a viable environmental outcome

Over his 39-year history with SaskPower, Rick Patrick has spent a lot of time imagining the future. Moving from plant engineer to project manager to vice-president of Power Production, he became increasingly concerned with how power generation could leave a smaller environmental footprint.

Now the vice-president of Planning, Environment and Regulatory Affairs, Rick is firmly focused on establishing what's ahead for power generation in the province. "The future needs to be a managed result," he says. "We don't want it to just happen to us by accident."

Increasing societal concern around how electricity is generated and delivered means that industry must address multifaceted and sometimes conflicting criteria. These include the necessity to find a pathway into future supply that meets stringent environmental demands while maintaining affordability for customers.

Rick explains: "There's a new dream emerging and it's clarifying a little bit every day. The new expectation is that electricity will be produced in an environmentally sustainable way. But as much as we dream about the future, we must also be practical."

That's why SaskPower's Centennial Wind Power Facility is part of a Canadian Electricity Association pilot project to assess the environmental impacts of a generating project over its entire operational life. The Life Cycle Impact Assessment considers all environmental variables and monetizes them, creating a level playing field for decision making on future generation projects.

SaskPower will need to replace or refurbish virtually its entire generating fleet within the next 25-30 years. For Rick and his industry colleagues across the country, most of whom are in similar situations, this represents a remarkable opportunity.

Because of enormous construction expenses and as a result of subsequent life extension efforts, generating facilities are used for 50 or more years. In the case of hydroelectric stations, their operation can often extend to 100 years. If a new fleet is constructed based on this pattern of replacement, the opportunity for major change and its associated environmental benefits can be lost for a half-century or more.

With SaskPower entering a rare system-wide window of renewal, the potential of a future with near-zero emissions technology keeps Rick motivated to find innovative solutions. Research into clean coal technology and polygeneration is inspiring optimism in the next phase of power generation.

"If we choose wisely and a little bit bravely," Rick says, "we can go to a much cleaner future in one bold step."

Emerging technologies

While wind is one of the sources helping SaskPower meet its short-term generation requirements, the Corporation must maintain a diverse generation mix in order to maximize reliability, minimize risk and maintain a solid financial footing. Presently, two-thirds of our electricity is produced using Saskatchewan's abundant supply of lignite coal. SaskPower has made inroads into the control of a variety of emissions produced from this secure and low-cost fuel, including particulate matter, sulphur dioxide (SO_2), nitrogen oxides (NO_x) and mercury. However, carbon dioxide (CO_2) — a major GHG — remains a central challenge.

In response, SaskPower is moving forward with a major study into the feasibility of the world's first near-zero emissions pulverized coal plant. It will be designed to capture over 95 per cent of CO_2, allowing the Corporation to continue taking advantage of the province's 300-year supply of mineable lignite. The design phase is expected to be completed by July 2007, at which time a decision will be made whether to proceed with construction.

SaskPower is also participating in extensive research examining the possible development of a polygeneration plant. For feedstock, the facility would use petroleum coke or petroleum residuals from the oil refining process. Advanced technology would nearly eliminate emissions, while using hydrogen, nitrogen, steam and CO_2 to produce such commodities as electricity and fertilizer.

A culture of accountability

When it comes to public companies, environmental commitment has joined financial transparency as a critical area of responsibility. Continuous environmental improvement demands that the appropriate reporting, auditing and governance structures are in place to ensure the appropriate standards are maintained and advances made. The basic principles of SaskPower's program of environmental stewardship remain:

1. Proactively identifying environmental opportunities and issues.
2. Understanding the environmental and economic impacts of options.
3. Actively and transparently communicating with employees, customers, regulators and the public.
4. Seeking agreement with stakeholders on environmental targets.
5. Ensuring regulators are fairly informed of environmental impacts.
6. Meeting environmental targets.
7. Measuring and demonstrating compliance.

Our Environmental Management System (EMS)

Our ISO 14001 EMS provides SaskPower, its employees and contractors with the necessary framework to achieve enhanced environmental performance. The ISO 14001 Standard provides the necessary guidance for environmental management, measurement, evaluation and auditing of activities with an underlying goal of continuous improvement. This set of rigorous measures is established by the International Organization for Standardization (ISO), a non-governmental, worldwide federation of national standards bodies from 140 countries that works in partnership with international organizations, governments, industry, as well as business and consumer representatives.

Since 2000, SaskPower has maintained registration through the yearly independent audit of eight distinct units of our EMS, which include generating stations, transmission and distribution facilities, as well as administrative groups that support operations. In total, 17 elements of SaskPower's EMS are regularly monitored and evaluated. Meanwhile, all new SaskPower employees attend EMS training and all employees must renew their training every three years.

In 2005, SaskPower's Transmission and Distribution (T&D) Business Unit established two new Environmental Systems Specialist positions. These personnel will provide improved reporting on T&D's environmental performance while also initiating enhanced spill reporting and providing full-time EMS-related expertise throughout the Business Unit. They will also play a key role in raising overall environmental awareness by educating staff about issues and procedures.

Environmental Policy

SaskPower's Environmental Policy clearly articulates SaskPower's commitment to environmental responsibility both internally and externally. In accordance with our EMS, it is reviewed each year. In 2005, the language within the Environmental Policy was modified to better reflect the Corporation's balanced scorecard indicators. Central to this reporting device is the strategic direction of promoting environmental stewardship. These changes were approved by the SaskPower Executive; Environment, Occupational Health and Safety (EOH&S) Committee of the Board of Directors; and the Board of Directors. The core principles within the Environmental Policy that are designed to protect our air, land and water are:

1. Compliance with relevant environmental legislation, regulations and corporate environmental commitments.
2. Prevention of pollution.
3. Continual improvement of environmental management systems and environmental performance.

Corporate Governance

The EOH&S Committee of the SaskPower Board of Directors augments the Corporation's EMS by ensuring that the Corporation proactively addresses safety, health and environmental issues and is in compliance with regulatory and statutory requirements. It also monitors corporate standards; reports on trends and public policy issues; reviews emergency response procedures; and recommends policies and actions.

During 2005, the EOH&S Committee approved SaskPower's modified Environmental Policy and also reviewed the potential implications of the Kyoto Protocol.

Environmental Screening System (ESS)

In 2005, SaskPower continued development of its online ESS. This database assists with the evaluation of environmental impacts and legal requirements associated with new projects. The ESS uses Geographic Information System (GIS) technology to combine more than 50 different layers of environmental information on one screen.

Protecting our air

Green Power Portfolio (GPP)

SaskPower's GPP is the focus of a near-term strategy that will allow the Corporation to add incremental supply to meet demand requirements until 2010 without increasing its greenhouse gas (GHG) emissions profile. This supply management program includes wind; the Environmentally Preferred Power (EPP) Program; distributed generation projects; energy conservation programs; and small-scale hydro.

Wind

The 150-megawatt (MW) Centennial Wind Power Facility brings Saskatchewan's combined electrical generation capacity from wind to 172 MW. In total, wind accounts for about five per cent of the province's total generation capacity, enough to meet the needs of about 73,000 homes. Currently this is one of the highest percentages in all of Canada.

In 2005, SaskPower and its subsidiary, SaskPower International, were awarded the first-ever Environmental Excellence Award. Sponsored by the Association of Professional Engineers and Geoscientists (APEGS), the award recognizes an APEGS member for efforts in environmental protection and preservation. The Corporation and SaskPower International were honoured for their commitment to developing environmentally progressive energy sources through wind power facilities.

SaskPower's EcoLogo-certified GreenPower product is provided by the province's other two wind facilities — Cypress and SunBridge. GreenPower allows customers the opportunity to support the development of renewable energy in Saskatchewan by purchasing 100-kilowatt hour (kWh) blocks of GreenPower. A single block purchase each month has the similar environmental impact as planting about 200 trees over the course of a year. The Government of Canada, Government of Saskatchewan, SaskTel, University of Regina and Hitachi Canada purchase GreenPower, while SaskPower is using the product to meet the equivalent of all the electrical needs for our Head Office. Farms, businesses and residences throughout the province are also using this product.

Mark Peters » profile

Engineering Project Leader
Power Production
SaskPower

Mark has been at the forefront of wind power development in the province since 2001, when he was assigned the task of establishing nine turbines at the Cypress Wind Power Facility, also located in southwestern Saskatchewan. Demand for wind power quickly outstripped supply, and just as the first phase was completed, the team was asked to add another seven turbines. Then, in 2003, SaskPower International received the mandate to build the Centennial Wind Power Facility, home to 83 turbines.

For Mark, transforming an empty field into one of the country's most significant wind facilities brought an unparalleled sense of accomplishment. "One of the highlights for me was seeing the first trainload of turbine components come through Regina," he remembers. "They had come from Denmark by boat to Houston, and then to Saskatchewan by train." This was just the first of seven train shipments that brought equipment for the new facility.

Generating wind power on this scale is part of SaskPower's ongoing commitment to reduce greenhouse gas emissions and meet future regulatory requirements. The Centennial Wind Power Facility establishes the Corporation as a leader in wind power generation in Canada. With the completion of the facility, approximately five per cent of the province's electrical generation comes from wind power.

Mark sees this as just the beginning. "The technology has matured a lot over the last five to 10 years," he explains. "The challenge lies in incorporating an intermittent source of power into our day-to-day operations and overall generation mix. We'll continue to research the possibility of increasing our wind power capacity, as long as it makes economic and environmental sense."

Renewable energy reaches new heights

Canada's largest operating wind farm began generating power in 2005, feeding electricity to SaskPower's grid from the hills approximately 25 kilometres southeast of Swift Current, Saskatchewan. SaskPower International's new Centennial Wind Power Facility was declared commercially operational in just 17 months, from signing the project contract to generating 150 megawatts (MW) of clean, renewable power.

"It has been an exciting project to be a part of and to be at the site to watch it all happen," says Mark Peters, engineering project leader. "At times I have to pinch myself. I don't think too many people have a chance to be involved in a project like this from start to finish."

Environmentally Preferred Power (EPP) Program

The EPP Program provides the opportunity for SaskPower to partner with independent power producers (IPPs) to build and operate environmentally low-impact generation projects. The EPP solicitation is targeted at smaller power projects that use either waste streams as a fuel source or proven technologies that produce no new emissions. Eligible technologies include wind, low-impact hydro, biomass, solar, flaregas, and heat recovery from existing waste heat sources. It will ultimately result in 45 MW of additional capacity made available to SaskPower's system.

In September 2003, SaskPower issued its first Expression of Interest for innovative and viable environmentally preferred electrical power generation projects between 25 kilowatts (kW) and 5 MW. In Phase I of the project, SaskPower selected three projects totalling 13 MW. In 2005, SaskPower signed a Phase I EPP contract with Alliance Pipeline for a 5-MW heat recovery project.

In Phase II, the size limit for eligible projects was increased to 25 MW, largely due to feedback from proponents who were responding to projected economies of scale to be gained from slightly larger projects. Over 320 MW of proposed generation were submitted by 11 proponents, from which up to 32 MW will be selected for implementation. In 2005, completed project proposals were submitted. As with Phase I, a detailed evaluation and selection process now begins to select one or more projects that best meet the criteria.

Distributed generation (DG)

The SaskPower DG demonstration pilot program was initiated to determine the potential advantages of innovative and sustainable technologies. DG involves the use of small generators — typically several hundred kW in size — at a consumer's site rather than at large centralized power stations. Energy available at the site is used to produce electricity, which can be used either at the site or fed into the electrical grid. Advantages include reduced line losses, local fuel resource and waste heat utilization, and GHG emission credits.

At the end of 2005, a variety of pilot projects were examining the potential use of various DG applications as sustainable supply options:

1. 2.8-kW photovoltaic array (solar) — A photovoltaic array was installed at the Saskatchewan Science Centre in 2001 to test the economics of solar-sourced electricity generation in Saskatchewan. Data shows that this technology is site specific, depending on the availability of sunlight. As a result, this technology is better suited for niche applications where connection to the grid is uneconomical or when passive solar enhancement is desired. The cost savings resulting from the solar system can not effectively offset the capital costs for installation. For the purpose of scientific demonstration, this project will continue operation.
2. 60-kW flare gas generating facility — This project was commissioned in 2003 in partnership with SaskEnergy and Flatland Exploration Ltd. to examine the use of flare gas from oil wells to run a microturbine. Results showed that this technology is not ready for effective application in Saskatchewan. The complexity of the generating equipment and unreliability of the fuel processing system proved the project both unreliable and uneconomical. This pilot was decommissioned in December 2005.

3. 120-kW natural gas-powered cogeneration system — A collaborative effort with SaskEnergy and the Regina Qu'Appelle Health Region, this Regina-based project was installed in 2003 to test the economics of self-generation using waste heat recovery for small institutions. Results show this technology is not suitable for small-scale installations as the risks associated with the price of natural gas prove to be much higher than the benefits offered. The project was demobilized in December 2005.

4. 120-kW bio-digester power generating facility — Working in collaboration with SaskPower, Clear-Green Environmental Inc., began operating this facility in 2004. It converts livestock manure at a hog facility near Cudworth, Saskatchewan, into methane to power four 30-kW microturbines. Results indicate reliability issues with generating equipment that require further investigation. As a result, data obtained to date is insufficient to make a valid conclusion. Evaluation of this pilot will continue in 2006.

5. 600-kW wood gasification power generation unit — This project is the result of a partnership with Zelensky Brothers Sawmill at a site near La Ronge, Saskatchewan. It involves the use of wood residue to produce heat and electricity. Due to technical difficulties associated with the gasifier, it will be redesigned, modified and tested in 2006.

Energy efficiency and conservation

SaskPower is working with all customers — residential, agricultural, commercial and industrial — to use less electricity. Through a variety of initiatives, we are lessening our environmental footprint while delaying the need to build more high-cost electrical generation facilities. We're also helping customers save money by reducing operating expenses.

Energy Performance Contracting (EPC) Program

The EPC Program, a component of SaskPower Energy Solutions, helps large customers reduce energy use in a cost-effective way. Energy efficient upgrades are made to heating, cooling, lighting, ventilation and building automation systems at customers' facilities. The savings from lower electricity, water and natural gas bills are used to offset the retrofit costs.

During 2000 through 2005, SaskPower led 15 projects involving 115 buildings and $26.5 million in project construction. The initiatives resulted in customer savings of $2.7 million through a reduction in electricity use of 22.7 gigawatt hours (GWh) and natural gas use by 3.8 million cubic metres.

In 2005, due to the success of the first five years of the program, SaskPower and Honeywell extended their strategic partnership for an additional five years. Meanwhile, during the year our EPC customers reduced their GHG emissions by 28,000 tonnes of CO_2. In addition, EPC representatives assisted two school divisions — along with an institutional and commercial customer — in designing and implementing projects. Two additional projects entered the design phase in 2005.

Community Energy Management Service (CEMS)

A CEMS pilot project was established with the community of Watrous, Saskatchewan, to determine the feasibility of SaskPower establishing a broader comprehensive energy management program for communities. This service assisted the Town of Watrous with an energy audit, conducted by the Saskatchewan Research Council, and provided a set of energy conservation measures for town facilities. In 2005, the community moved to implement the energy conservation measures recommended in the feasibility report. These include the installation of energy efficient lighting, motors and heating systems.

Power savings campaign

In 2005, SaskPower continued to raise awareness about ways customers can save power and reduce their environmental impact. With major appliances accounting for approximately 37 per cent of a typical household's power use, this year's campaign focused on helping Saskatchewan residents use appliances more efficiently. Information was communicated through the province's television and radio networks, as well as print publications and saskpower.com.

In the fall, the campaign featured a contest offering residents a chance to win an energy efficient LCD computer monitor. The contest heightened awareness of the efficiency of using a LCD monitor and the savings achieved by turning off a computer when not in use. During the holiday season, all of SaskPower's customer service offices reduced GHG emissions by two metric tonnes (equal to planting 448 fully grown trees) by simply replacing incandescent holiday light strings with LED light strings.

Power savings tips and tools

This online service — available at saskpower.com — allows residential customers to find information on how to manage their electrical use. Customers can learn where their electricity dollars go and get tips on how to save power. The Appliance Cost Calculator, the most popular tool on the site, allows customers to look up the cost of running any appliance or electrical item in their home and discover the potential savings by using energy efficient lighting and ENERGY STAR® appliances. EnergyCheck, an interactive home energy audit, provides customers with more personalized information on their energy use and GHG emissions.

Education programs

In order to raise awareness about climate change among customers and youth, SaskPower works in conjunction with a variety of partners. Climate Change Saskatchewan is a group of government and academic partners that delivers information about climate change to residents across the province. In 2005, corporate sponsorship by SaskPower helped bring The Climate Change Show travelling exhibit to the Western Development Museum in Saskatoon. Exhibits supporting a multimedia theatre were organized into three themes: Understanding the Science, Impacts of a Changing Environment, and Living in a Changing World. They provide important background on climate change and projections of changes to our landscape that may result.

Meanwhile, SaskPower Shand Greenhouse and SaskPower Environmental Programs continue to collaborate in delivering a school presentation about electrical production in Saskatchewan. Aimed at grades four, five and six audiences, the Energy and Our Environment presentation asks students to think about how they use electricity and what society can do to reduce its impact on our environment. Nearly 3,000 students in 79 schools viewed the presentation in 2005.

SaskPower also partners with the Saskatchewan Environmental Society and SaskEnergy to bring the Destination Conservation Saskatchewan (DCS) program to Saskatchewan schools. DCS is a practical, student-driven environmental education program with an emphasis on energy and water conservation and waste reduction. It promotes sustainability by helping schools conserve resources and is an integral part of SaskPower's EPC service for Saskatchewan school divisions. In 2005, as a result of SaskPower funding, 87 students and 64 teachers/caretakers representing 17 schools across Saskatchewan attended six workshops.

Information for the public on the Corporation's environmental achievements and challenges is also available through saskpower.com.

Small power producers

SaskPower has a Small Power Producers Policy for customers wanting to generate up to 100 kW of electricity in order to offset power purchased from SaskPower. Wind- and solar-powered facilities are typical examples of customer generation facilities covered by the policy, which outlines interconnection requirements ensuring that safety, power quality and system security concerns are addressed. SaskPower will purchase excess energy based on our average variable cost of electricity from all other sources.

Meanwhile, the Alternative Farm Energy Solar- or Wind-Powered Livestock Water Pumping Incentive Program offers a grant equal to 50 per cent of the cost above $500, to a maximum of $500, toward the purchase and installation of a solar- or wind-powered water pumping system for farm livestock. This assists producers who would otherwise have to run power lines to remote wells, dug-outs or streams.

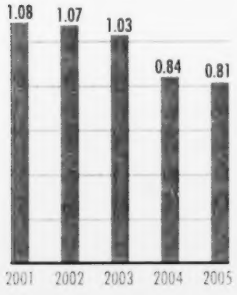
Meeting all emissions challenges

In order to respond to anticipated future regulatory requirements, SaskPower must consider a variety of prospective technological advances along with their probable associated costs. In all cases, SaskPower must effectively weigh environmental and economic outcomes when considering decisions around infrastructure. In addition to multi-disciplinary cooperation within the company, SaskPower is dealing with this complex issue by working closely with government, industry, non-governmental organizations and regulatory agencies in order to ensure a sustainable and secure supply of electricity. In addition to recently announced feasibility studies into clean coal and polygeneration, the Corporation remains active in a number of diverse areas.

Partners in planning

SaskPower is a founding member of the Canadian Clean Power Coalition (CCPC), which has a mandate to research, develop and demonstrate commercially viable clean coal technology. Members include Canadian coal and coal-fired electricity producers and the California-based Electric Power Research Institute (EPRI), with a SaskPower employee seconded as its executive director. The CCPC is establishing a demonstration plant program that will lead to the selection of a technology option and business case.

Net mass CO_2 emissions per unit of net fossil generation (kg/kWh)



Meanwhile, SaskPower is an industry partner in the International Energy Agency (IEA) GHG Weyburn CO_2 Monitoring and Storage Project. This joint research undertaking with the IEA and EnCana is conducting a world-leading international study that involves injecting and storing CO_2 underground for enhanced oil recovery. To date, results demonstrate that the Weyburn field is highly suitable.

SaskPower is also working closely with the University of Regina's International Test Centre (ITC), which develops technologies to reduce CO_2 emissions. The ITC is establishing Saskatchewan as a world leader in CO_2 capture technology, in part through a $5.2-million pre-commercial scale technology demonstration plant at SaskPower's Boundary Dam Power Station. SaskPower is also a participant in the Canada Centre for Mineral and Energy Technology (CANMET) CO_2 Consortium. Its objective is to advance an oxy-fuel process for the capture of CO_2.

Mercury emissions

In 2005, the Canadian Council of Ministers of the Environment (CCME) issued a draft Canada Wide Standard (CWS) for mercury, requiring SaskPower to significantly reduce its mercury emissions by 2010. As part of the CWS process, all Canadian utilities agreed to determine the amount of mercury passing through power plants. SaskPower is playing a leading role, as the only utility to develop in-house capability for analyzing mercury in coal and ash streams. Under an independent quality control program, SaskPower has been recognized as having one of the most proficient labs for this kind of analysis and receives numerous inquiries for advice.

The Corporation has been operating an Emissions Control Research Facility (ECRF) at Poplar River Power Station since the fall of 2004, with much of the focus on exploring and developing technologies for mercury control.

This work has attracted the involvement of other important lignite-burning utilities and suppliers of mercury-control technology and has received funding support from agencies in Canada and the United States. In 2005, the potential for achieving effective mercury control was demonstrated. However, several issues related to impact on plant operations still need to be resolved. Plans are in place to address these challenges in 2006.

Compliance with new federal mercury regulations still requires a reliable method of monitoring mercury emissions. In order to conduct the work at the ECRF, SaskPower has already installed two continuous mercury analyzers that are considered the most advanced available. The Corporation is working with the equipment's manufacturer to improve its reliability so that it can be used for compliance monitoring.

In addition to the ECRF, SaskPower is investing in a variety of research and development activities aimed at determining the most suitable way to control mercury emissions. In particular, SaskPower is involved in a number of projects through the Lignite Energy Council, which includes various Canadian and American lignite-burning utilities and lignite-producing mining companies.

Other emissions

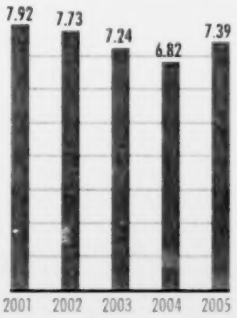
SaskPower is taking proactive steps to manage other emissions — not considered GHG — from our generating stations:

1. Particulate emissions — In 2005, SaskPower committed to undertake significant work to improve the particulate removal performance of the control system at Poplar River Power Station. This will include extensive mechanical repairs and refurbishments, better control of operations and the incorporation of new technology to achieve enhanced particulate capture.

2. Sulphur dioxide (SO_2) emissions — SaskPower is currently conducting a multi-year project involving a series of significant mechanical improvements and upgrades. Once completed, process optimization and potentially more effective SO_2-control reagents will be studied. While the main driver for this work is to reduce our SO_2 emissions so they are well below regulatory limits, we are also examining options to achieve very low SO_2 concentrations in flue gas in order to accommodate effective CO_2 control.

3. Nitrogen oxide (NO_X) emissions — These emissions are produced by the combustion of fossil fuels — including coal. In general, SaskPower's NO_X emissions are well within regulatory limits; however, the Corporation has an ongoing program to investigate ways of achieving even lower emissions by modifying conditions under which coal is burned. SaskPower is also evaluating innovative NO_X-control technologies that have the potential to achieve very low NO_X levels while avoiding most of the problems associated with conventional technologies.

Net mass SO_2 emissions per unit of net fossil generation (g/kWh)



Net mass NO_X emissions per unit of net fossil generation (g/kWh)

SaskPower CO_2 offsets

In the immediate future, SaskPower has elected not to pursue GHG credit trading. However, SaskPower has a number of unverified offsets which in 2005 totalled over 2.3 million tonnes. These include:

Forest Carbon Sequestration Agreement — 2.2 million tonnes

As a result of a partnership between SaskPower and Saskatchewan Environment initiated in 1999, this project offsets GHG emissions by establishing more than 500,000 hectares of forest carbon reserves and the planting of five million tree seedlings. The project received third party endorsement from the Greenhouse Emission Reduction Trading (GERT) Pilot in 2002. SaskPower began receiving these annual offsets in 2003; they will continue until 2012.

Old Man on His Back Nature Prairie Reserve — 50,000 tonnes

SaskPower and the Nature Conservancy of Canada partnered to create the 5,300 hectare Old Man on His Back Prairie and Heritage Conservation Area in southern Saskatchewan. The undisturbed native grasslands capture CO_2 from the atmosphere and store it in the soil. Beginning in 1996 and continuing until the end of 2005, SaskPower will receive 50,000 tonnes of carbon dioxide offsets per year.

Flyash — 48,596 tonnes

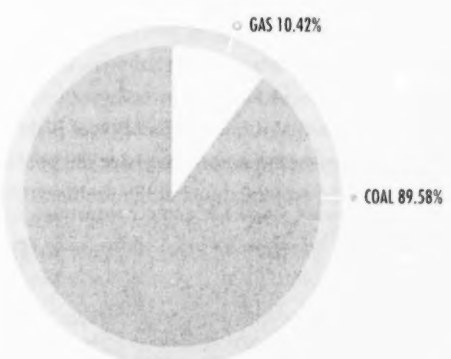
Flyash is a fine ash that is a byproduct of burning finely pulverized coal in thermal power stations. It is sold for use in ready mix concrete, mine backfill, oil well cementing, road base stabilization (highway improvement) and oil well site environmental applications. The flyash offsets assume that by selling flyash, we are offsetting the CO_2 produced in the course of cement manufacture.

GEMCo Norseman Landfill Gas Project — 1,665 tonnes

Through the Greenhouse Emissions Management Consortium (GEMCo), SaskPower is contracting for GHG reductions resulting from a landfill gas capture project in Surrey, B.C. SaskPower began receiving these annual offsets in 2004; they will continue until 2013.

In addition to GHG, SaskPower is also developing creative ways to offset other emissions. The Corporation is working with IPSCO and Wheat City Metals in Regina on an innovative program that will see the mercury in automotive switches captured and recycled before cars are crushed. This will help our coal-fired stations meet new federal mercury emissions regulations. Meanwhile, in the coming year SaskPower will be implementing a recycling program for household thermostats containing mercury.

Generation by fossil fuel — 2005



Internal energy efficiency

Three internal energy indicators measure the efficiency of the three major phases of electricity delivery — generation, transmission and distribution. This essentially constitutes the amount of electricity used and/or lost in each of the phases. The energy conversion percentage for 2005 is consistent with past performance, and within historical normal variation.

Activities in 2005 that improved energy efficiencies included:

Hydroelectric generation

The final phase of a three-year overhaul of Nipawin Hydro Station was completed with the rebuild of the turbine and generator of the 85-MW Unit #2. Improved service of this low environmental impact energy source will result, with the maintenance cycle extended from one to three years.

Fossil fuel generation

Poplar River Power Station Unit #2 is receiving a $129-million upgrade. This will result in increased internal unit efficiency of approximately 3.7 per cent, improved availability, ensured capacity, reduced particulate emissions and increased life expectancy. A $145-million upgrade to Unit #1 is scheduled for completion in 2008.

Renewable generation

Construction of the 150-MW Centennial Wind Power Facility neared completion. Electricity from a number of turbines began feeding to the provincial grid in December 2005. Official commissioning is slated for 2006.

Internal energy efficiency (%)

	2005	2004	2003	2002	2001
Generation	**94.5**	94.1	94.6	93.6	93.3
Transmission	**95.8**	95.5	95.8	95.2	95.4
Distribution	**95.4**	95.0	95.3	94.8	95.0

Flyash

In 2005, SaskPower International sold flyash produced by Boundary Dam Power Station and Shand Power Station. Flyash is used in a variety of applications, including ready mix concrete, mine backfill, oil well cementing and oil well site environmental applications. SaskPower International also continues to provide flyash to a Saskatchewan-based company involved in a provincial highway improvement project (road base stabilization). Flyash is blended with other materials and used to strengthen thin membrane surfaced (TMS) roads, commonly referred to as secondary highways, across the province.

Protecting our land

Assessments and project approvals are an important part of our Environmental Management System (EMS). In order to ensure compliance with all legislative requirements, SaskPower continually conducts internal screenings of generation, transmission and distribution projects. If there is any prospect that development will affect environmentally sensitive lands, habitats, species or archaeological sites, SaskPower Environmental Programs assesses the project plans in detail. As a result, a variety of steps may be necessary:

1. Legal approvals and permits are required.
2. The development area in whole or part must be field inspected.
3. An environmental protection plan must be implemented.
4. Other actions are required.

Project referrals and field assessments

	Referrals					Assessments				
	2005	2004	2003	2002	2001	**2005**	2004	2003	2002	2001
Generation	**0**	2	3	2	5	**2***	4*	2	3	2
Transmission	**9**	2	8	9	10	**3***	8*	10*	13	11*
Distribution	**526**	383	326	299	335	**62***	38*	37*	45	41
Other	**11**	5	0	0	0	**7**	3	0	0	1*
Total	**546**	392	337	310	350	**74***	53*	49*	61	55*

*Includes fieldwork conducted in the given year for projects referred to Environmental Programs in previous years.

Kit Krozser » profile

Archaeological Analyst
Environmental Programs
Planning, Environment and Regulatory Affairs
SaskPower

A history of preservation

As an archaeological analyst with SaskPower's Environmental Programs department, Kit Krozser has come to expect surprises. "We go wherever we're needed to preserve the historical significance of land affected by SaskPower development projects," she explains. "Whether we're recording rock art around the Reindeer Lake Reservoir or adjusting power pole placement to avoid tipi rings near an oil well service, we're working to safeguard the history and culture of our province."

One of Kit's major projects in 2005 was the reclamation of a Doukhobor cemetery that had been unmarked and overgrown with brush for more than 75 years. The cemetery had been part of the village of Besednoe, which was established in 1899 near Canora by a group of Doukhobor immigrants. Just 15 years later the village was abandoned and the cemetery site was remembered only by former residents and their families.

By 2003, the land containing the cemetery had been purchased by the Kalmakoff family and was scheduled to be cleared for cultivation. As long-time area residents, the landowners knew the cemetery was on their property, but an exact location could not be identified.

SaskPower was contacted for assistance due to its involvement with the land in the mid-1970s during right-of-way clearing. The Corporation committed to assisting with the recovery of the cemetery since indicators that would have helped to identify its location had been unknowingly altered by SaskPower approximately 30 years earlier.

A ground-penetrating radar survey was conducted to determine signs of ground disturbance or evidence of subsurface abnormalities. SaskPower archaeological experts, in consultation with Saskatchewan Heritage, mechanically stripped the area in 15-centimetre increments. Evidence of burial sites was soon uncovered.

"Without disturbing a single burial, we were able to confirm the cemetery location using surface indications in the soil of grave excavation," Kit says. "We also found evidence of considerably more burials than originally anticipated — 17 in total."

For Jonathan Kalmakoff, one of the landowners and also a lawyer with SaskPower, the discovery is personal. "As a SaskPower employee, I was pleased to see the Corporation take a major role in the recovery of the cemetery," says Jonathan. "We plan to seed the cemetery to grass, fence it off and erect a cairn with the names of those known to be buried there and the family names of Besednoe residents."

Major projects

In 2005, Environmental Programs participated in a variety of SaskPower major projects:

150-MW Centennial Wind Power Facility

In 2005, construction continued on the Centennial Wind Power Facility (formerly known as the Rushlake Creek Project). During this period, environmental monitors worked closely with site personnel to ensure SaskPower and contractors adhered to conditions of provincial and federal approval. In addition, they made sure the project was constructed with the least possible impact on the environment and the least disruption to adjacent agricultural activities. A two- to three-year study of migratory bird impacts is expected to be initiated in early spring 2006.

Kindersley area well site servicing

An oil company in the Kindersley area has requested servicing to over 600 oil well sites. During 2005, construction of overhead power lines along the existing road network began. Development of additional overhead lines and construction of secondary underground lines to individual well sites is anticipated to begin in spring 2006. In order to limit environmental impact, where possible the project was designed so that secondary underground lines run along existing access trails and previously disturbed lands. However, some environmentally sensitive lands, such as the Antelope Community Pasture, will be crossed. Comprehensive heritage resource impact assessments and biological surveys for species at risk were conducted to ensure that impacts were avoided or minimized.

ML3 Stage 4 Transmission Line

The transmission line rebuild between Green Lake and a switching station south of Meadow Lake continued throughout 2005, with construction expected to be completed in early 2006. Although above-average precipitation levels throughout the year set construction back many times, work proceeded with few environmental impacts. As a part of this rebuild, SaskPower will conduct a two-year migratory bird impact study with assistance from Saskatchewan Environment to develop a study protocol.

Island Falls-Pelican Narrows Transmission Line

In 2005, SaskPower was granted environmental approval for its line route from Island Falls Hydroelectric Station to the pending Pelican Narrows substation. The project will enhance service reliability to communities in northeastern Saskatchewan — such as Pelican Narrows, Sandy Bay, Jan Lake and Deschambault Lake. Above-average water levels in the province resulted in a longer construction period; however, the line should be completed by late winter 2006. Environmental impacts in the area have been low, in part due to innovative use of swamp mats throughout the area. In addition, the placement of a structure on an island in the Sturgeon Weir River was done by helicopter.

Site assessments

SaskPower conducts site assessments prior to the sale, purchase or lease of property, or as a result of investigations indicating the potential for contamination. If necessary, we initiate site remediation after the assessment has been completed.

Creighton vehicle building

A site assessment was conducted in 2005 at the Creighton district office prior to the construction of a new vehicle building. The site assessment identified elevated concentrations of arsenic, copper, lead and zinc that were above soil quality guidelines. The contaminated soil was disposed of in the local landfill. Final approvals have been received.

Pinehouse Lake Generating Station

A Phase II Environmental Site Assessment was conducted at the location of a former diesel-fuelled generating station in Pinehouse Lake. The assessment identified concerns with petroleum hydrocarbons in the subsurface soils at the site. Delineation of the contamination was undertaken as part of the Phase II Environmental Site Assessment. The Phase II assessment and delineation report will be completed in 2006.

Regina downtown property

A downtown property in Regina, being considered for purchase by SaskPower, was assessed in 2005. Concentrations of contaminants exceeding criteria were identified on the property.

Regina substation

SaskPower is considering releasing some land at an electrical substation adjacent to Powerhouse Drive for use as parkland within Regina's Wascana Centre. SaskPower began assessing this area for contaminants in 2004. Assessment progressed in 2005 but was not completed. Work on this project will continue in 2006.

Rosthern district service building

A diesel-fuelled power station was located on the former Rosthern district service building property. A total of approximately 1,500 cubic metres of petroleum hydrocarbon-affected soil was identified on the property and on adjacent properties to the south and east. Elevated concentrations of arsenic have also been identified in the shallow groundwater. A number of environmental consultants were approached in 2005 regarding the potential for bioremediation. Because the response was limited, other approaches for management or remediation of the contamination will be pursued.

Steelman 72-25 kV substation

Prior to the rebuild of the substation in 2005, a site assessment identified elevated petroleum hydrocarbons in the surface soils that were above provincial criteria. In accordance with the clean-up plan that was approved by Saskatchewan Environment in 2005, the petroleum hydrocarbon-contaminated soils were excavated and placed in an industrial landfill. Based on post-excavation sample results, further excavation will be necessary in 2006.

Sturgis service centre

From 1990 to 2005, SaskPower leased the Sturgis service centre. Prior to the end of the lease agreement, an environmental assessment was conducted that identified surface soil contaminated with petroleum hydrocarbons. The affected soil was excavated and temporarily stockpiled at SaskPower's new service centre. Approval was received from Saskatchewan Environment and the Town of Sturgis to place the soil in the town landfill for landfarming.

Tisdale vehicle storage building

A new vehicle storage building was constructed in the Tisdale district storage yard. A site assessment identified elevated petroleum hydrocarbon concentrations within the construction area. A clean-up plan was prepared and subsequently approved by Saskatchewan Environment. The petroleum hydrocarbon-contaminated soil was excavated and placed in the Tisdale landfill for landfarming.

Wynyard 72-25 kV substation

The substation was decommissioned in 2004. A site assessment identified petroleum hydrocarbons in the surface soils that were above acceptable criteria. The clean-up plan prepared by SaskPower was approved by Saskatchewan Environment in 2005. The petroleum hydrocarbon-contaminated soil was excavated and placed in the Town of Wynyard landfill for landfarming.

Other assessments

Eight properties were assessed prior to being released for sale or returned to the lessor, including substations, warehouses, offices and vacant land. Soil samples were collected at five of the properties. The samples were analyzed for polychlorinated biphenyls (PCBs), hydrocarbons, metals, and where necessary, pentachlorophenol (PCP) and creosote. At some substations, wipe samples were collected from the transformer pads for PCB analyses.

In addition, 15 properties were assessed prior to finalizing the lease or purchase agreements. Five other assessments were completed relating to new construction on existing SaskPower property or decommissioning activities on property to be retained by SaskPower.

Spills

Current legislation requires that spills of hazardous substances be reported to regulatory authorities. Legislation defines a spill by type, volume and location. SaskPower had 15 reportable spills in 2005. The impact of 13 spills was either negligible or mitigated as appropriate. However, two spills involved releases of dilute acid to a reservoir. These spills were investigated by the regulatory authorities and SaskPower was issued a formal warning. The Corporation is seeking engineering solutions to ensure these types of spills do not reoccur.

Number of reportable spills

	2005	2004	2003	2002	2001
Oils spills	**7**	6	5	10	4
PCB-contaminated oil spills (≥5ppm)	**2**	6	5	7	5
Other spills	**6**	5	4	5	3
Total spills	**15**	17	14	22	12

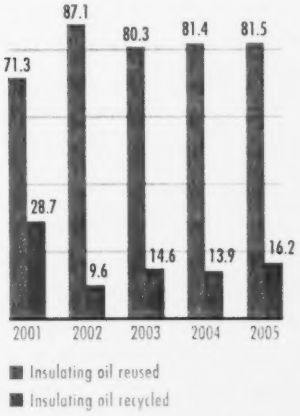
PCB management

PCBs were used by the electrical utility industry as cooling and insulating fluids in some types of electrical equipment. Today, they remain present as a contaminant in varying concentrations in some of SaskPower's equipment. Due to potential adverse effects if released into the environment, SaskPower uses special handling, storage, and disposal measures when dealing with PCB-contaminated equipment.

Insulating oil

Mineral oil is used as an insulator and coolant in virtually all of SaskPower's transformers and in many other types of electrical apparatus. The Corporation reuses much of this insulating oil.

Insulating oil reused and recycled (%)



Integrated Vegetation Management (IVM)

IVM is a systems approach that combines an understanding of plant ecology with a wide range of management tools to manage vegetation in an effective, economical and environmentally responsible manner. This methodology is especially important as SaskPower maintains safe vegetation levels along power line rights-of-way of more than 154,000 kilometres of transmission and distribution lines. These corridors can vary in width from 10-70 metres, depending on the size of the power line and height of surrounding vegetation. IVM ensures SaskPower will manage vegetation in a manner that:

1. Uses an ecological approach;
2. Is cost-effective;
3. Considers community values in establishing standards of maintenance for SaskPower properties;
4. Receives landowner consent;
5. Uses herbicides responsibly; and
6. Complies with SaskPower's Environmental Policy and all relevant federal and provincial legislation.

The IVM Policy includes a number of methods for controlling plant species in transmission and distribution line rights-of-way, while also encouraging the establishment of plant species that provide important wildlife habitat. Mechanical methods, seeded and naturally occurring native vegetation, as well as selective herbicide use, are included in the options used by the Corporation. Because of the lower long-term costs associated with an integrated approach, this policy brings economic as well as environmental benefits.

By using IVM practices to promote the development of low-growing vegetation, SaskPower reduces the possibility of branches falling across a line, which can cause damage and interrupt electrical service. In forested areas, if trees come into contact with high voltage lines, they could cause forest fires. In 2005, SaskPower continued to work cooperatively with rural municipalities and individual landowners to establish a database of organic growers across Saskatchewan, which tracks landowners who have chosen not to have herbicides used in power line rights-of-way that are adjacent to their land.

Training for SaskPower staff working on vegetation management is ongoing not only to ensure that power lines operate safely and reliably, but also to ensure that environmental aspects such as prevention of the spread of Dutch elm disease in the province are addressed. Dutch Elm Disease Regulations that came into force in 2005 extend the elm tree pruning ban. As a result, tree trimming schedules for in-house personnel and contractors were adjusted. Dutch Elm Disease Awareness information sessions were delivered throughout the province to communicate the changes in the regulations to staff and contractors.

Zero G

Established in 1993, the Zero G program highlights SaskPower's goal of zero garbage. This comprehensive waste management and resource recovery program is in place at the Corporation's offices and facilities across Saskatchewan. One of the main components is our corporate paper and cardboard recycling program. During 2005, SaskPower recycled over 62,000 kilograms of waste paper and cardboard from the Corporation's facilities in southern Saskatchewan.

Historically, SaskPower found that many of the items used in its operations were not included in existing recycling programs. As a result, whenever possible we have responded by developing new recycling programs, either on our own or in partnership with other organizations. Today, Zero G includes recycling programs for materials as diverse as aerosol cans, oily rags, used oil, solvents, antifreeze, batteries, printer cartridges, phone books, plastic bags, metals, streetlight bulbs and organic matter. Waste audits — another key element of the program — are conducted at SaskPower facilities each year to help identify new waste recovery opportunities and to ensure that effective waste diversion methods are in place.

SaskPower is also taking Zero G to the community and raising awareness about the importance of waste reduction:

1. Clean Team — A unique partnership between SaskPower and the Saskatchewan Association of Agricultural Societies and Exhibitions (SAASE) resulted in the establishment of the Clean Team. This program helps local community groups across Saskatchewan address waste management and disposal on fair grounds. Additional benefits include waste reduction at local landfills, revenues for local non-profit groups through honoraria and recycling proceeds, as well as year-round access to SaskPower recycle and refuse bins at exhibition facilities. In 2005, 23,000 bags of trash were collected and 2,500 bags of recyclables were diverted from landfills.

2. Saskatchewan Waste Reduction Council — SaskPower supplies financial support to this organization which delivers public education initiatives, particularly during Waste Reduction Week each fall.

3. Green the Park Program — In cooperation with the City of Regina and the Saskatchewan Roughriders, approximately 200,000 drink cups (80 per cent) are recycled annually at Taylor Field.

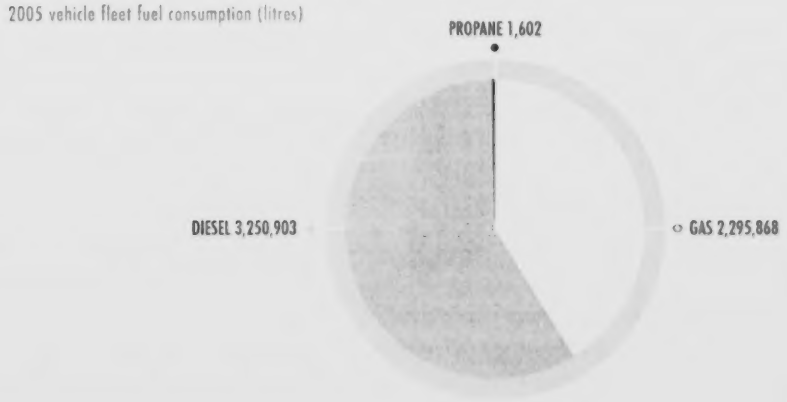
4. thINK FOOD — SaskPower continues to join the Regina and District Food Bank in the thINK FOOD program, which recycles laser and inkjet cartridges from the Corporation's offices as part of a Canada-wide initiative. The program also raises much-needed funds for Saskatchewan food banks.

5. Head Office audit — Grade five students from St. Catherine School in Regina assist with a waste audit at SaskPower's Head Office each spring, giving participating youth first-hand knowledge of the environmental benefits that come from recycling and waste diversion.

Transportation management

Fleet Services is researching environmental advances in fleet-related technologies and management methodologies. Advances in alternative fuels are being monitored, and SaskPower added three hybrid trucks to its fleet in 2004 for testing. The three-year project will gather data on the effectivenes of hybrids in a variety of Saskatchewan work settings, including city and highway uses. Initial indications are that hybrids hold some promise for future integration into our fleet, although maintenance and repair service in non-urban areas may be an issue.

Fleet Services continually monitors the performance of our entire gasoline and diesel fleet, with a focus on our light duty vehicles. To date, current trends and experience indicate that our diesel and gasoline units have similar fuel economies when averaged over applications, ages of assets and engine displacements. While diesel units have a marginally smaller fuel cost per litre than gasoline units, their repair costs are trending upwards as these assets age (based on current performance).



Procurement

The environmental implications of the procurement of goods and services are an integral part of all decision making at SaskPower. Corporate guidelines help ensure that environmentally appropriate products are acquired. As well, contractors providing goods or services to SaskPower must meet the requirements of our EMS.

Electric and magnetic fields (EMF)

Since 1972, the scientific community has been studying the potential health effects of EMF. Extensive research has not yet established a clear risk resulting from exposure. However, research continues into the possible relationship between EMF and certain human diseases. These efforts are focused on determining any health impacts by long-term low level exposure to EMF, particularly magnetic fields. Both epidemiological and laboratory studies are included in efforts to quantify health effects.

SaskPower believes acknowledging and addressing concerns regarding EMF is important and continues to share information with customers. Upon request, the Corporation will measure and report on EMF in residential, commercial or public buildings, or assist customers wishing to take their own measurements. SaskPower staff also estimate EMF levels for proposed electrical facilities, such as transmission lines. As a member of the Canadian Electricity Association (CEA), SaskPower monitors research into EMF conducted by universities, government and other scientific bodies.

SaskPower Shand Greenhouse

Since 1991, SaskPower Shand Greenhouse has been using waste heat from the nearby Shand Power Station to grow millions of tree, shrub and grass seedlings. These have been provided to community and non-profit organizations for use in land reclamation and other environmental planting projects. By spring of 2005, over 4.8 million were distributed.

Years of research culminated in 2005 with the completion of the Western Red Lily Centennial Project. Over 81,000 lilies were distributed to individuals and projects throughout Saskatchewan with the assistance of our partners: Saskatchewan Learning; Communities in Bloom; Nature Saskatchewan; Association of Saskatchewan Urban Parks and Conservation Areas; and the Saskatchewan Horticultural Society. Meanwhile, the Energy and Our Environment poster contest was presented for the fourth consecutive year, with grades four, five and six students challenged to communicate ways we can all help to address the issue of climate change. As part of a pilot, the program was expanded to include an opportunity for Estevan high school students to make environmental videos.

Constructed wetland

This year, for the first full season, visitors experienced newly installed national park-quality interpretive signage. This investment in the wetland highlights the important role it plays in conserving habitat, wildlife and waterfowl. Free educational tours of the constructed wetland, led by SaskPower staff, allow visitors to learn more about this natural purification process.

Built in 1994 near the Estevan sewage lagoons, SaskPower's constructed wetland is one of the largest of its kind in Canada. Approximately 500,000 cattails were transplanted by hand to the wetland from marsh areas in the Souris River Valley. The wetland is the only one in North America providing cooling water to a power station. As a water source for the Shand Power Station, it is environmentally friendly, cost-efficient and requires little maintenance. The wetland's natural cleansing abilities help lower the City of Estevan sewage treatment costs and also eliminate the impact that the community's previous semi-annual discharges had on the Souris River.

Working with our community partners

We value the opportunity to join community groups in protecting natural spaces. In 2005, SaskPower initiated or continued a number of important alliances:

Native Plant Society of Saskatchewan (NPSS)

In 2005, SaskPower entered the second year of a five-year financial commitment to the NPSS in support of the Regina Plain Seed Nursery, which provides the seed for the Prairie Restoration Projects. The 2.2 million acre Regina Plain, which includes the cities of Regina, Moose Jaw and Weyburn, is the target area for this project. In October, students from Pense Elementary School planted native prairie seed provided by the NPSS in a prepared restoration site in the school yard.

Saskatchewan Wildlife Federation (SWF)

The SWF's Youth Outdoor Leadership and Conservation School brings young people from across Saskatchewan together to develop their skills as safe, ethical and experienced outdoor leaders. Under the guidance of experienced counselors and resource management professionals, 42 students from 36 communities across Saskatchewan received training in such areas as wilderness survival, canoeing, camping, fishing, game and fisheries management, orienteering, shooting and the traditional and medicinal use of plants.

Ducks Unlimited Canada (DUC)

Through the Diamond Legacy Sponsorship, SaskPower contributes approximately $115,000 annually to DUC in support of initiatives designed to assist the conservation of ducks, migratory birds and their habitats. In 2005, the sponsorship was directed to four programs:

1. Restoring Saskatchewan wetlands; pilot easements — This pilot program promotes small wetland restoration on private lands. DUC staff identify the wetland basins to be restored and provide technical expertise for restoration. The wetland basin is then restored by constructing an earthen ditch plug, with the conservation easement protecting the wetland basin in perpetuity. To date, over 50 acres have been secured, with negotiations proceeding on a further 15 acres.

2. Saskatchewan Wetland Education Program — In 2005, this initiative reached over 7,600 children and 841 adults in 857 classrooms/field trip presentations. Since the program began in 1999-2000, SaskPower funding to DUC has helped provide learning opportunities to almost 46,000 children and 5,000 adults through over 3,200 classroom visits and field trips.

3. The Saskatchewan Nest Structure Program — DUC provides biological direction and financial assistance to offset the costs of construction, installation and maintenance of nest structures that are put up by wildlife federations and landowners.

4. Habitat Inventory and Monitoring Project — This initiative will inventory priority waterfowl landscapes through aerial photography to document occurrence, class, form, type and function. This information will be linked to DUC conservation actions and program development, allowing for better planning and prioritizing of conservation efforts. In 2005, aerial photography of the Lightning Creek sub-watershed was completed and is currently being mapped.

Meewasin Valley Authority (MVA)

This year marked the completion of the SaskPower Kilometre Meewasin Trail Extension, a project of Meewasin's Cameco Trails Campaign. The new extension begins at Victoria Park along Spadina Crescent with a backshore link through the Sanatorium Site to Holiday Park. In addition to a financial contribution, SaskPower donated a voluntary easement on 1.8 acres on the east side of the river for the purpose of accommodating future Meewasin Trail development. Over one million visits are made to the Meewasin Trail each year.

Nature Saskatchewan

SaskPower continues to provide financial support to Nature Saskatchewan's Plant Watch program, which provides identification training and education on the province's native plant species. SaskPower is also playing a part in Nature Saskatchewan's program to conserve the loggerhead shrike in Saskatchewan through the provision of buffaloberry seedlings produced at the SaskPower Shand Greenhouse.

Western Hemisphere Shorebird Reserve Network

One of the province's Western Hemisphere Shorebird Reserve Network sites is located in the Quill Lakes area in east-central Saskatchewan. It is home to many rare and endangered migratory birds, such as the peregrine falcon, ferruginous hawk, Baird's sparrow and whooping crane. SaskPower is supplying solar-powered water pumps to support the ongoing operation of the Shorebird Reserve. These pumps provide an alternative source of water for four nearby rangeland pastures, which allows the Quill Lakes ecosystem to thrive and support bird life.

Saskatchewan Parks and Recreation Association

Through the Communities in Bloom program, SaskPower and the Saskatchewan Parks and Recreation Association encourage Saskatchewan communities to engage in municipal beautification. Communities are awarded for their efforts in landscaping, urban forestry, environmental awareness and tidiness.

Saskatchewan Prairie Conservation Action Plan (PCAP)

SaskPower is a partner in PCAP, which consists of 25 groups representing industry, federal and provincial government agencies, several non-government organizations and Saskatchewan's two universities. PCAP's vision is is to ensure native prairie is sustained in a healthy state. SaskPower is the only industry-related member in PCAP.

Wood pole project

In 2005, an Industrial Treated Wood Users Guidance Document (UGD), developed under the auspices of Environment Canada (EC), was distributed to all industrial users of treated wood. The recommendations contained in the UGD are designed to minimize releases of specific wood preservative chemicals. Where applicable, SaskPower will be incorporating the UGD recommendations into our existing practices. We will also be reporting — through the CEA — on our progress in implementing the recommendations. There are an estimated 1.5 million treated wood poles presently in service in Saskatchewan.

Species at Risk Act (SARA)

As a member of the CEA, SaskPower has been active in providing input into national policy development related to the implementation of the federal SARA. A workshop was held with Fisheries and Oceans Canada (DFO), other utilities and EC in 2005 to discuss concerns around SARA implementation and possible solutions. This dialogue is ongoing.

The SARA-listed species of most immediate concern to SaskPower is the piping plover, with only an estimated 6,000 remaining in the world. SaskPower is continuing its work to preserve piping plovers through collaborative efforts with government and non-governmental organizations at Lake Diefenbaker — the site of one of the largest single-site breeding grounds for the Northern Great Plains population. SaskPower's Coteau Creek Hydroelectric Station is also located on Lake Diefenbaker, meaning that water management for various interests — including hydroelectricity production — can come into conflict with piping plover nesting and brooding requirements. Rising water levels due to water management activities can result in flooded nests and loss of brood-rearing habitat.

As a result, SaskPower has been working proactively with other agencies to develop the South Saskatchewan River Piping Plover Conservation Plan. Under this plan, SaskPower provided funding assistance for plover monitoring, predator exclosures and a public education and outreach program (The Nature Saskatchewan Guardian Program). SaskPower is also a member of the Prairie Piping Plover Recovery Team, a multi-organization group that is responsible for developing a recovery strategy for piping plover. High water flows into Lake Diefenbaker in 2005 also resulted in the Saskatchewan Watershed Authority undertaking a captive rearing operation to salvage eggs in danger of being flooded. SaskPower contributed funding to cover 50 per cent of this operation.

In addition to management of specific species such as piping plovers, within Saskatchewan all new SaskPower distribution, transmission and generation projects are screened through an environmental database and Geographic Information System (GIS). This system references species at risk listed both provincially and federally, as well as significant natural areas and habitat. SaskPower project development may also include on-the-ground environmental studies to verify species at risk if their presence can not be verified by other means.

Migratory Bird Convention Act (MBCA)

On behalf of the CEA, SaskPower is leading discussions with EC regarding amendments to the federal MBCA. The *Act* has been changed to allow for the development of regulations that would permit the accidental killing of migratory birds during the course of legal operations.

Previously, incidents of this nature could have resulted in formal charges by EC. In Saskatchewan, this change to the *Act* is particularly relevant to the issue of piping plovers, which can be affected by normal operations of the Coteau Creek Hydroelectric Station despite efforts to mitigate impacts. SaskPower will continue working with the CEA and other industry groups to provide additional input into regulation development.

Protecting our water

SaskPower continues to work cooperatively with Fisheries and Oceans Canada (DFO) and other agencies to investigate the fish and fish habitat issues that may be of concern as a result of hydropeaking at E.B. Campbell Hydroelectric Station. In 2005, fieldwork that began the previous year continued to support an aquatic assessment research project downstream of the power station. The results of this research will assist in understanding whether there are cost-effective mitigation actions that could be taken by the facility to benefit fish and fish habitat.

During the year, the River 2-D Hydrodynamic Model was calibrated for the site-specific conditions based on bathemetry, habitat features and remote sensing data collected the previous summer. In addition, site-specific habitat suitability curves were developed for species selected for study. Work is progressing on schedule and will be completed in 2007.

Meanwhile, SaskPower is still investigating fish stranding concerns at E.B. Campbell through the implementation of a monitoring program in 2005. However, due to high river flows, several monitoring dates were cancelled and moved into 2006. The purpose of the monitoring program is to establish an indication of the species and scope of stranding that is occuring as a result of hydropeaking operations.

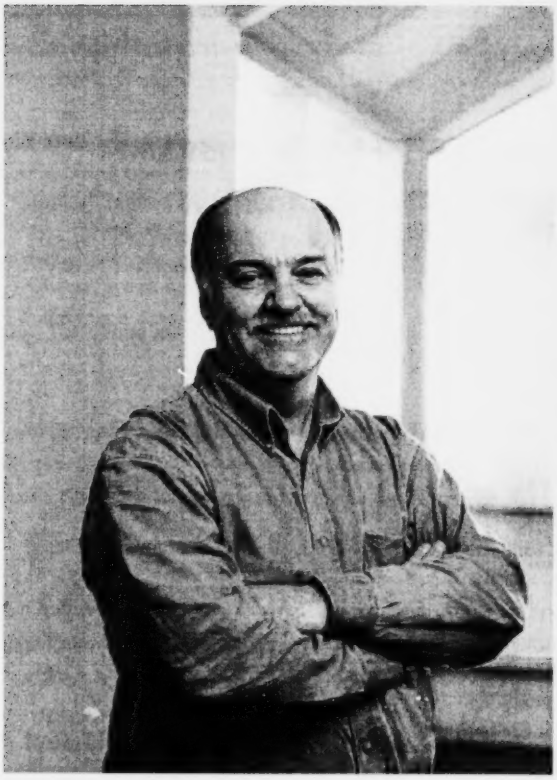
Near-record water flows on the Saskatchewan River system in July 2005 resulted in a spill at E.B. Campbell Hydroelectric Station and the need to conduct fish salvage in the spillway channel. SaskPower worked with local fishermen from Cumberland House to salvage stranded lake sturgeon and successfully release them downstream of the powerhouse.

Raising employee understanding about environmental issues and responsibilities is a growing priority. During the year, two workshops were delivered on DFO's new operational statements, and SaskPower and DFO Prairies held a joint orientation workshop in early 2005. This gathering was initiated as a pilot under the Canadian Electricity Association (CEA)-DFO Memorandum of Understanding (MOU). It brought together approximately 20 participants from each agency in order to facilitate an understanding of the mandates and operations of both organizations.

An outcome of the workshop was an initiative to pursue an action plan that will identify fish and fish habitat concerns at SaskPower facilities, along with potential resolutions or improvements. A committee has been struck that includes membership from SaskPower, DFO, Saskatchewan Environment and the Saskatchewan Watershed Authority (SWA). The committee has toured SaskPower's thermal and hydro facilities, is drafting an MOU and is developing a process for prioritizing issues.

Regulatory compliance

SaskPower continues its engagement with the CEA as it moves forward in developing a compliance framework with DFO under their MOU. During the year, progress was made in the development of the interpretation bulletin on fish passage. These documents will assist in bringing consistency and clarity to the application of *The Fisheries Act* as it is applied to hydroelectric facilities. The interpretation bulletin is a mechanism consistent with the federal government's Smart Regulation agenda. In addition, SaskPower and DFO Prairies hosted the annual national workshop in Saskatoon, as identified under the MOU.



Gerry Millette » profile

Manager
Northern Hydro
SaskPower

The challenging currents of water management

Above-average snowfall over the winter and extremely high rainfall in the summer resulted in record flows on the Churchill River system in 2005. Excess water passed through SaskPower's Island Falls Hydroelectric Station, raising water levels to unprecedented heights.

"The water level came up a foot and a half above the station's concrete deck," says Gerry Millette, manager of Northern Hydro at SaskPower. "We were in jeopardy of having water seep into the plant."

In order to keep water out of the plant, temporary dams were constructed and 44 new pumps were installed. The excess water was creating other challenges as well. A portion of the station's access road was under four feet of water. Staff had to access the plant by boat while the road was reconstructed. Gerry and production support supervisor Tony Werrett spent a month living on-site as Island Falls staff defended their plant against the highest water flows on record.

Environmental concerns were another priority. High water levels forced the station to spill excess water, leading to the risk of stranding fish in isolated pools downstream of the control structure. Plans have been developed for the recovery of affected fish and their release into safer waters once the spilling of water is complete.

According to Gerry, the early adoption of a strategy to involve every team member in troubleshooting was critical to success. From the beginning, plant personnel were part of a daily meeting to discuss the situation and assign responsibilities.

Gerry offers one of many examples of the ingenuity that emerged: "We had installed floor drains to prevent water from coming into the plant, but the plugs we had weren't working. One of the Island Falls staff members whittled new plugs from poplar wood — they worked like a dream."

During the high water flow period, all hydro units were operating to their maximum capability. This drastically reduced the requirement for natural gas-generated electricity during that time, which ultimately helped improve SaskPower's financial and environmental bottom line for 2005.

For Gerry and his team, it's another job well done: "You do what you have to do," he says. "It was a challenge, but we all felt pretty good afterwards."

Saskatchewan River Sturgeon Management Board (SRSMB)

As a founding member, SaskPower is a participant on the SRSMB. Its mandate is to prevent the further decline of lake sturgeon in the Saskatchewan River downstream of E.B. Campbell Hydroelectric Station. In 2005, SaskPower completed the delivery of the Sturgeon in the Schools program. The Corporation sponsored a day in Saskatoon for schools that had received sturgeon the previous year to release their fish into the South Saskatchewan River. A portion of SaskPower's SRSMB sponsorship was also provided to the sturgeon index fishing program completed by Cumberland House fishermen.

Renewable energy

In 2005, a major overhaul of Nipawin Hydroelectric Station Unit #2 marked the completion of a planned refurbishment of all units in order to ensure they continue to provide a clean source of electricity well into the future. In 2004, Unit #3 underwent a complete rebuild, while work on Unit #1 was concluded the previous year.

Zebra Mussels

An invasive species that can damage ecosystems and water intake structures, zebra mussels are a threat to Saskatchewan's water resources. In 2005, SaskPower brought together a number of provincial agencies that undertook educational activities to alert the public about the dangers of zebra mussels and the importance of cleaning boats to try to prevent their spread into Saskatchewan waters. Materials developed include a poster, brochure, advertisements and news releases.

Consultation

Engaging in two-way dialogue with our customers and community reflects a key corporate value at SaskPower — displaying openness in everything we do. The Corporation consults with a wide variety of stakeholders on a diverse range of environmental issues. When we are beginning work to construct a new facility or improve an existing one, public involvement is a central component of our efforts.

Our programs typically include early contact with local officials, distribution of detailed project information, open house sessions, meetings with individuals and interest groups, media releases, advertisements, and direct correspondence and discussion. Results of public participation programs are frequently included in project application and approval processes that are filed with regulators. SaskPower also tracks inquiries in our EMS.

In 2005, SaskPower held a variety of public open houses to seek customer feedback on new or ongoing transmission and power production projects, including: the Boundary Dam Ash Lagoon Expansion Project, TC5 Stage 2 Transmission Line, and the Kerrobert Waste Heat Environmentally Preferred Power Project.

Outside of our formal public consultation process, SaskPower maintains ongoing dialogue with a wide variety of key stakeholders, including: Saskatchewan Environment, Saskatchewan Industry and Resources, Fisheries and Oceans Canada (DFO), Saskatchewan Environmental Society, the provincial Office of Energy Conservation, and the Canadian Electricity Association (CEA). In addition, we maintain ongoing dialogue with stakeholders in centres where we conduct operations.

Reporting on our activities

Communicating in an open and transparent fashion with our stakeholders, shareholders and customers is critical as we strive to maintain relationships characterized by trust. SaskPower reports on environmental activities in such a way that our efforts can be judged against past performance and also compared on an equal footing with efforts by corporations in other jurisdictions.

1. We report annually to our customers, shareholders and stakeholders through this Environment Report.
2. We file an annual Environmental Commitment and Responsibility Program report with the CEA.
3. We participate in the compilation of the Saskatchewan State of the Environment Report.
4. We report annual greenhouse gas (GHG) emissions to Statistics Canada.
5. We report corporate environmental expenditures to Statistics Canada.

Our performance

Canadian Electricity Association (CEA) Environmental Commitment and Responsibility (ECR) Program

The CEA ECR Program reports industry-wide on efficiencies (on a 3-year reporting cycle — not reported this year) and environmental impacts. CEA ECR Program data for 2005 was not available at the time of printing.

	2005	2004		2003		2002		2001	
	SaskPower	CEA	SaskPower	CEA	SaskPower	CEA	SaskPower	CEA	SaskPower
Net mass carbon dioxide per unit of net fossil generation (kg/kWh) [A]	**0.81**	0.93	0.84	0.95	1.03	0.89	1.07	0.83	1.08
Net mass sulphur dioxide per unit of net fossil generation (g/kWh) [A]	**7.39**	4.96	6.82	4.91	7.24	4.88	7.73	4.77	7.92
Net mass nitrogen oxides per unit of net fossil generation (g/kWh) [A]	**2.56**	1.77	2.57	1.84	2.50	1.79	2.79	1.73	2.89
Reportable spills [B]	**15**	597	23	1,100	14	1,173	22	1,167	12
Priority spills [B, C]	**0**	83	2	70	1	82	2	87	0
PCB in storage (tonnes) [B, D]									
High level	**0.2**	27.5	0	44	1	55.3	2	104	9
Low level	**0.7**	374.6	1	806	13	1,014	31	849	15
PCB sent for destruction [B] (tonnes)									
High and low level	**8.6**	1079.5	30	1678.6	42	733.8	38	1,703	38

[A] Includes 100 per cent of emissions from Cory Cogeneration Station in 2005.

[B] The data reported through the ECR Program for reportable and priority spills, as well as PCBs in storage and sent for destruction, are representative of the overall totals of all Canadian utilities (including SaskPower) that have been participating in this industry-wide program. ECR criteria for reportable spills differs from the definition of reportable spills included in provincial legislation. Data meeting provincial criteria is found on page 24.

[C] In compliance with the CEA ECR Program reporting guidelines, a priority spill is one involving a substance that is a petroleum product or PCB-contaminated, and either one of the following: a spill with a volume greater than 500 litres or a spilled substance that enters a waterbody.

[D] According to the ECR Program guidelines, *high level* PCB material is defined as any material (including equipment) with a PCB concentration greater than 1 per cent (10,000 ppm); *low level* PCB material is defined as any material (including equipment) with a PCB concentration of greater than 50 ppm but less than 10,000 ppm.

Our environmental policy

SaskPower demonstrates environmental leadership through prudent use of natural resources, now and into the future.

We have adopted the following principles to help safeguard our air, land and water resources:

1. Compliance with relevant environmental legislation, regulations and corporate environmental commitments.
2. Prevention of pollution.
3. Continual improvement of our environmental management systems and environmental performance.

In support of these principles, SaskPower employees and those working on our behalf will:

- Manage all significant environmental aspects associated with our operations and services.
- Establish and maintain environmental objectives and targets.
- Audit our environmental performance regularly, including audits for conformance to the ISO 14001 Standard for Environmental Management Systems.
- Integrate environmental considerations into corporate decision-making processes.
- Ensure employees and contractors know and fulfill their environmental roles and responsibilities.
- Avoid, reduce or control emissions or discharges which may adversely affect the environment.
- Conserve resources through efficient use and implement the fundamentals of waste management: rethink, reduce, reuse, recycle and recover.
- Communicate actively, transparently and effectively with shareholders, employees, contractors, suppliers, customers, regulators and the public on environmental issues.

System map

Generation

Hydroelectric

1. Athabasca Hydroelectric Station – 23 MW
   - Wellington (5 MW)
   - Waterloo (8 MW)
   - Charlot River (10 MW)
2. Island Falls Hydroelectric Station – 101 MW
4. E.B.Campbell Hydroelectric Station – 288 MW
5. Nipawin Hydroelectric Station – 255 MW
10. Coteau Creek Hydroelectric Station – 186 MW

Natural Gas

3. Meadow Lake Power Station – 44 MW
7. Landis Power Station – 79 MW
8. Queen Elizabeth Power Station – 386 MW
11. Success Power Station – 30 MW

Wind

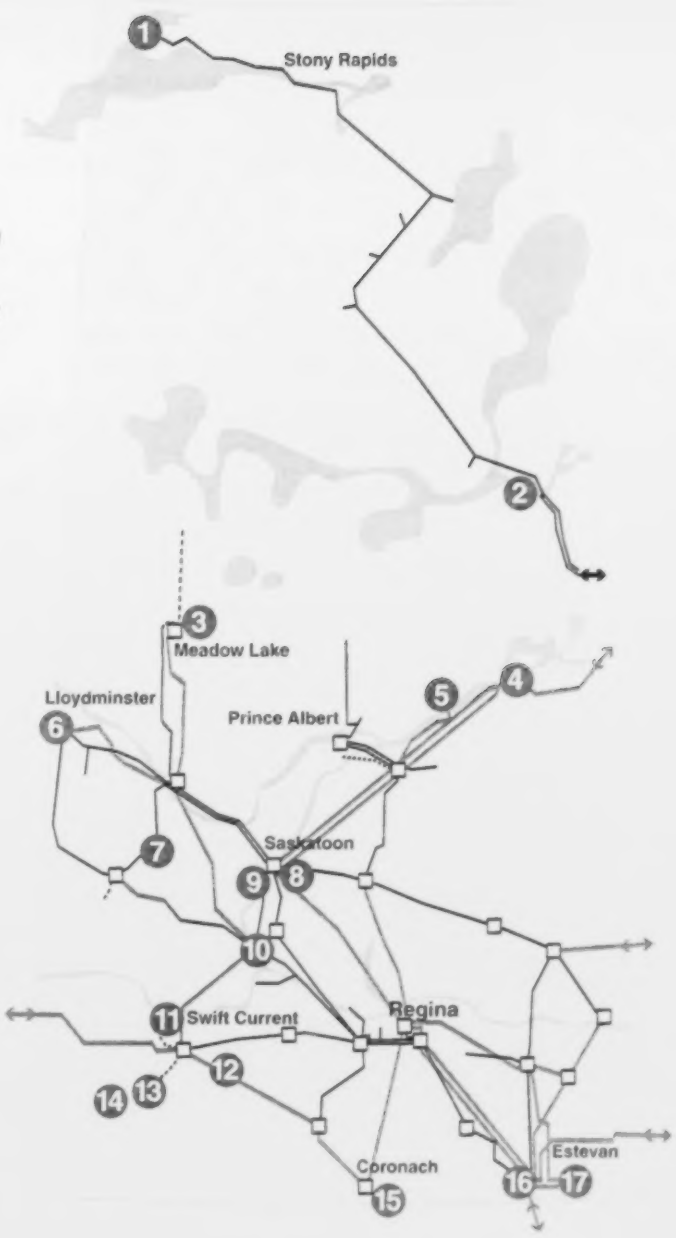
12. Centennial Wind Power Facility – 150 MW *(under construction)*
14. Cypress Wind Power Facility – 11 MW

Coal

15. Poplar River Power Station – 562 MW
16. Boundary Dam Power Station – 812 MW
17. Shand Power Station – 279 MW

Independent Power Producer

6. Meridian Cogeneration Station – 210 MW
9. Cory Cogeneration Station – 228 MW
13. SunBridge Wind Power Project – 11 MW



Transmission

- 230 kV
- 138 kV
- 138 kV line operating @ 72 kV
- Switching Station
- Interconnection

Generation and transmission system

Net generation (GWh)

	2005	2004	2003	2002	2001
Fossil	**13,263** *	14,370 *	14,044 *	12,659	12,509
Hydro	**4,573**	2,746	3,416	2,836	2,391
Wind	**56**	35	20	4	0
Total	**17,892**	17,151	17,299	15,499	14,899

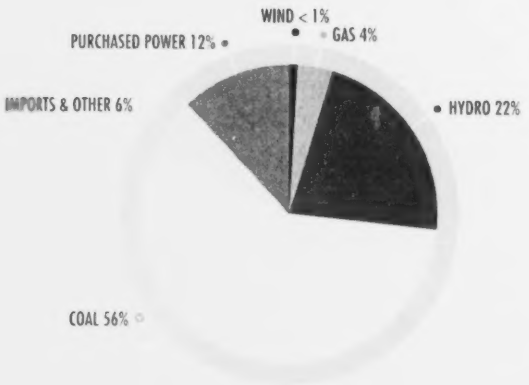
* Includes power purchased from the Cory Cogeneration Station

Transmission and distribution lines (pole kilometres)

	2005	2004	2003	2002	2001
Transmission (72 kV – 230 kV)	**12,159**	12,149	12,104	12,026	12,290
Distribution (14.4 kV – 25 kV)	**142,110**	141,408	140,733	140,084	139,460

Historically, line kilometres were estimated; the recent use of satellite mapping systems has resulted in more accurate data

2005 Generation and purchased power by type (%)



Glossary

Biogas Methane created from the decomposition of organic matter such as manure or landfill waste; can be used to power engines to generate heat and electricity.

Biomass Energy resources derived from organic matter. These include wood, agricultural waste and other living-cell material that can be burned to produce heat energy.

Carbon dioxide equivalent (CO_{2e}) A unit of measurement used to calculate the impact of the various gases involved in global warming.

Carbon dioxide equivalent offsets Initiatives designed to reduce net CO_2 from the burning of fossil fuels. Offsets are carried out independently of the source emissions.

Cogeneration Simultaneous production of heat energy and electrical power from the same fuel in the same facility. The use of waste heat (as in steam) from an industrial process to produce electricity or the use of steam or hot water from electric power generation as a heating source.

Distribution Process of moving electric energy at lower voltages from major substations to customers.

EcoLogo The registered trademark of Environment Canada's Environmental Choice Program. An independent firm evaluates the product applications and certifies the products that qualify as low-impact renewable electricity.

Electric fields Invisible fields of force created by electric voltage, measured in volts/metre (V/m).

Electrostatic precipitator (ESP) A device for removing particles of ash, dust, smoke and other elements from air and gas flows.

Environmental Management System (EMS) Part of an overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining an environmental policy.

Flyash Fine powder resulting from the combustion of pulverized coal used in many coal-fired generating stations.

Fossil-based generation Includes coal- and natural gas-fired generation of electricity.

Gigawatt Hour (GWh) A unit of bulk energy; 1,000,000 kilowatt hours.

GreenPower An EcoLogo-certified product offered by SaskPower that provides customers with the opportunity to purchase blocks of electricity produced from renewable resources with little or no environmental impact.

Greenhouse gas (GHG) Naturally occurring gases such as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (NO_2) that trap heat in the earth's lower atmosphere.

ISO 14001 A standard that defines the elements of a sound environmental management system. The ISO 14000 Series is a family of environmental management standards developed by the International Organization for Standardization (ISO).

Kilovolt (kV) A unit of pressure, or push, of an electric current; 1,000 volts.

Kilowatt hour (kWh) A unit of bulk energy; 1,000 watt hours. The measurement is generally used for billing residential customers.

Kyoto Protocol An international agreement, reached in 1997 in Kyoto, Japan, by parties subject to the United Nations Framework Convention on Climate Change (UNFCCC). The agreement extends the commitments of the UNFCCC by establishing greenhouse gas emission targets for participating developed countries.

Landfarming A remediation method in which contaminated soils are periodically turned over or tilled to aerate the soil and encourage microbial activity, which breaks down the contaminants.

Lignite A low-grade coal, intermediate between peat and bituminous, lignite has the lowest energy content among the various grades.

Magnetic fields Invisible fields of force created by electric current, measured in microtesla (mT) or milligauss (mG).

Megawatt (MW) A unit of bulk power; 1,000 kilowatts. The output of a commercial generator or power station is usually expressed in megawatts.

Oxy-fuel process Combustion in the presence of oxygen, which results in a flue gas containing almost exclusively water and carbon dioxide.

Particulate matter Emissions of ash particles from the burning of fossil fuels.

Polychlorinated biphenyls (PCBs) A group of organic compounds that were once used as cooling and insulating fluids in various types of electrical equipment, including transformers and capacitors.

Transmission Process of moving electric power in bulk at higher voltages from the source of supply to distribution centres.

Our strategic direction

» Vision:

Excelling in competitive energy markets.

» Mission:

We deliver power in a safe, reliable, cost-effective and environmentally responsible manner.

» Values:

We are committed to respect, integrity and openness in all we do.

» Strategic priorities:

Building excellence in customer service delivery.

Developing SaskPower's people.

Promoting environmental stewardship.

Ensuring sound financial management.

We value your feedback and involvement. To learn more about about our programs and initiatives, please visit us online at saskpower.com or contact:

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